

Maps of Area-Wide Soil Contamination in Washington

Area-Wide Soil Contamination
Task Force Meeting

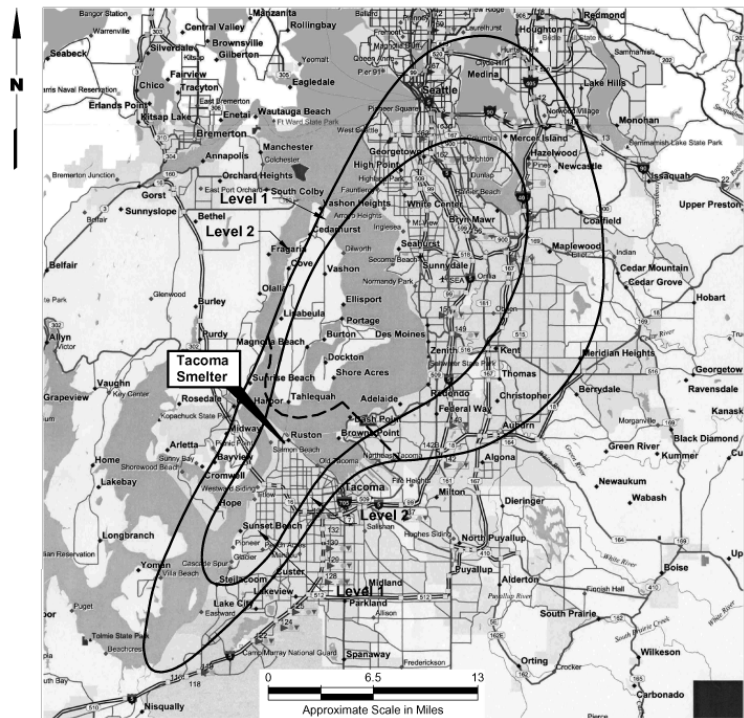
April 24, 2003

Tier 1: Areas Potentially Affected by Historical Smelter Emissions

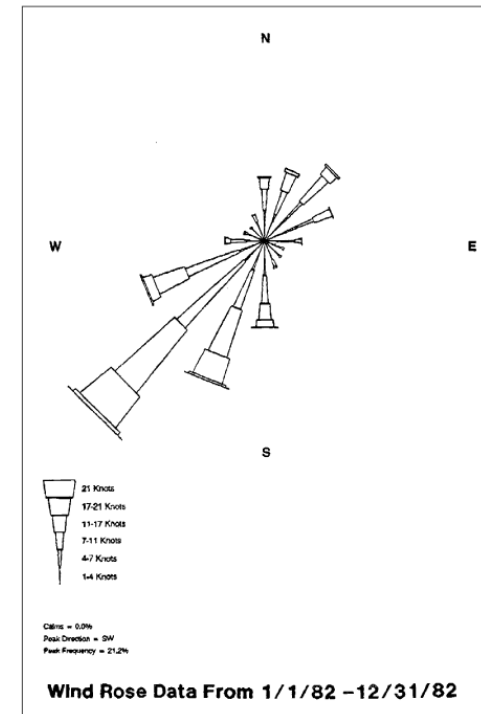


Based on Data Available as of
January 2003

Tier 2: Map of Area Affected by Emissions from the Tacoma Smelter with Wind Rose Diagram



Adapted from: Delorme Street Atlas USA, 2000



Source: Asarco Information Center
Station Location: Tacoma Smelter

Legend

Level 1: Area Where Shallow Undisturbed Soil Likely Exceeds 20 mg/kg Arsenic

Level 2: Area Where Shallow Undisturbed Soil Occasionally Exceeds 20 mg/kg Arsenic

Data Sources:
Ecology, 2002
Glass, 2002

Interpreting a Wind Rose

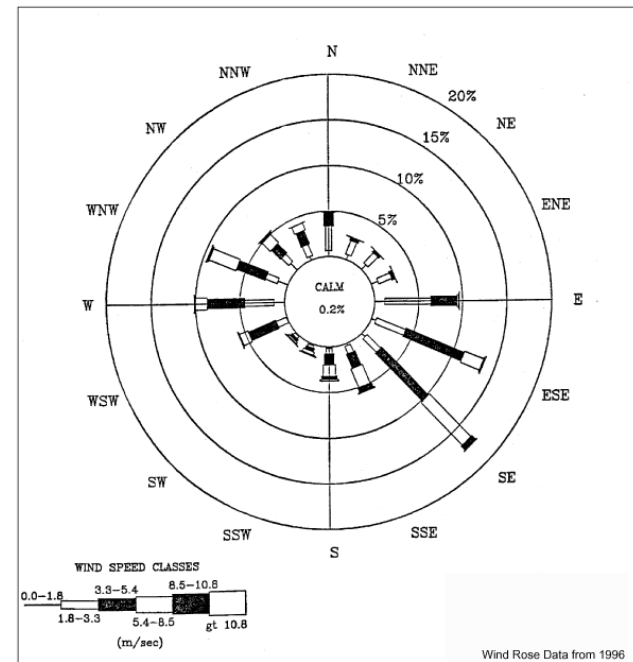
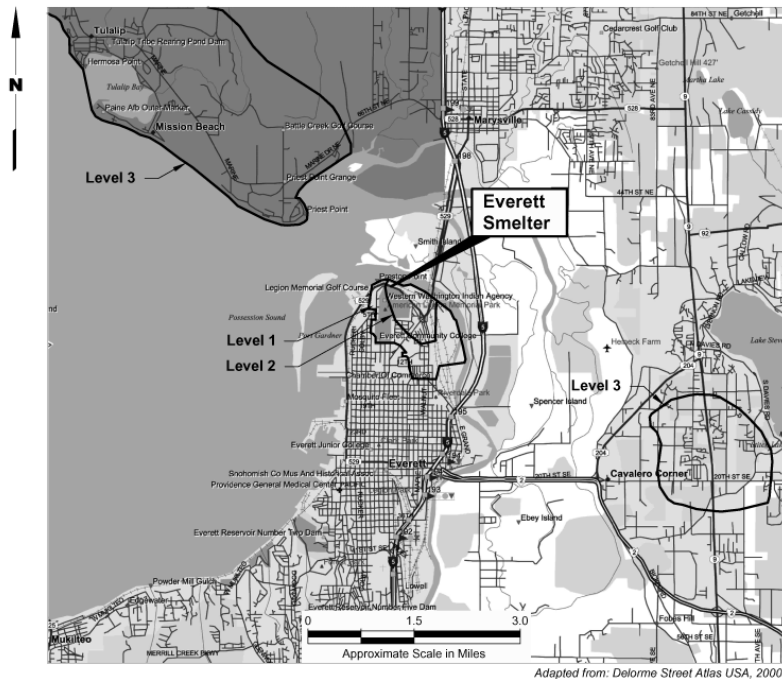
A wind rose is a quantitative graphical summary of the wind direction and speed for a given time. The wind rose graph shows the number of hours (expressed as a percentage) that the wind blew from a particular direction and speed. The wind rose spokes or arms represent 16 points of the compass and are labeled by wind direction. The percentage of time the wind blew from a given direction is expressed by percentage of that direction on the perimeter of each rose. The length of each segment of a spoke represents the percentage of time the wind speed was within a specific speed interval for a particular direction (the longer the spoke, the greater the time that the wind blew from that direction). If summed for all wind directions, the result would provide the percentage of all hours the wind speed was measured within a specific interval. The percentage of time when the winds were light and variable is shown in the center of the rose.

Disclaimer

The map of the area affected by smelter emissions was originally developed in 2003 for the Landau Associates report "Preliminary Estimates, Area-wide Contamination Strategy, Washington State". They are based on information available at that time and are intended to provide a general indication of where elevated levels of arsenic and lead in soil may be present due to historical smelter emissions, so individuals and communities can assess whether to look into additional information on area-wide soil contamination. Additional information on area-wide soil contamination, including information on actions individuals can take to better understand the potential for elevated levels of arsenic and lead at individual properties and to minimize the potential that they will be exposed to arsenic and lead, is available at www.asarco.com.
Not all of the areas identified on the map will actually have elevated levels of arsenic and lead in soil. This map should not substitute for a site-specific assessment.

Based on Data Available as of
January 2003

Tier 2: Map of Area Affected by Emissions from the Everett Smelter with Wind Rose Diagram



Source: Scire 1999
Station Location: Everett Smelter Site

Legend

Level 1: Area Where Shallow Soil Likely Exceeds 20 mg/kg Arsenic

Level 2: Area Where Shallow Soil Occasionally Exceeds 20 mg/kg Arsenic

Level 3: Area Where Modeling Predicted Most Likely Particulate Deposition From Former Furnace Stack

Data Sources:
Ecology, 1999
Scire, 1999

Interpreting a Wind Rose

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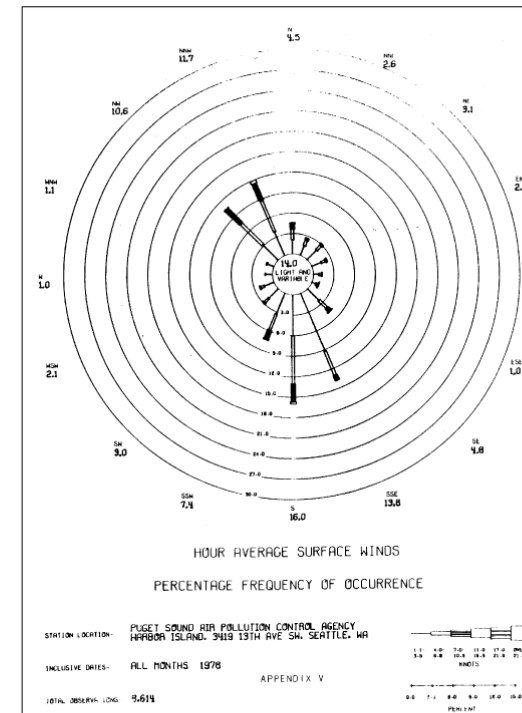
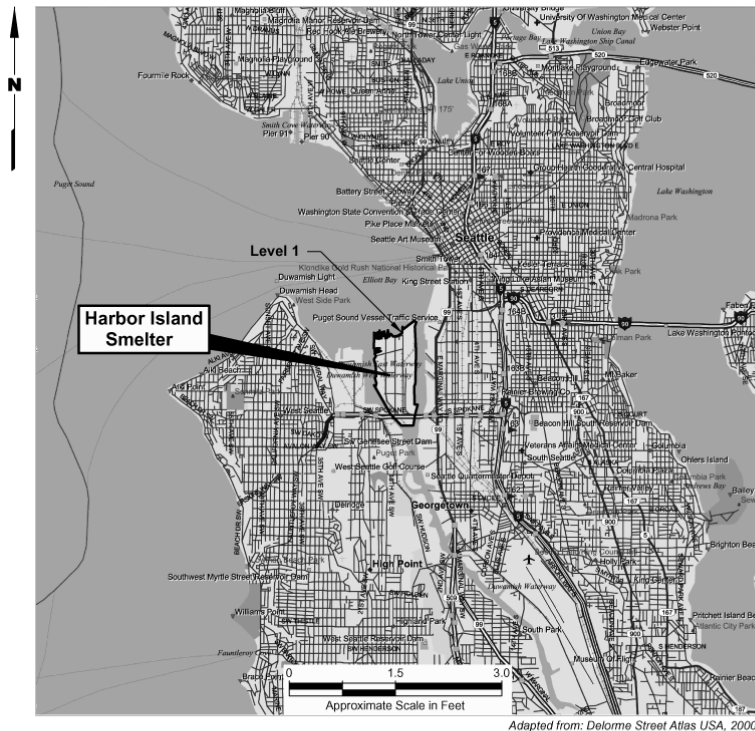
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Based on Data Available as of
January 2003

Tier 2: Map of Area Affected by Emissions from the Harbor Island Smelter, Wind Rose Diagram



Legend

Level 1: Area Where
Shallow Soil Likely
Exceeds 250 mg/kg
Lead

Data Source:
Weston, 1993

Interpreting a Wind Rose

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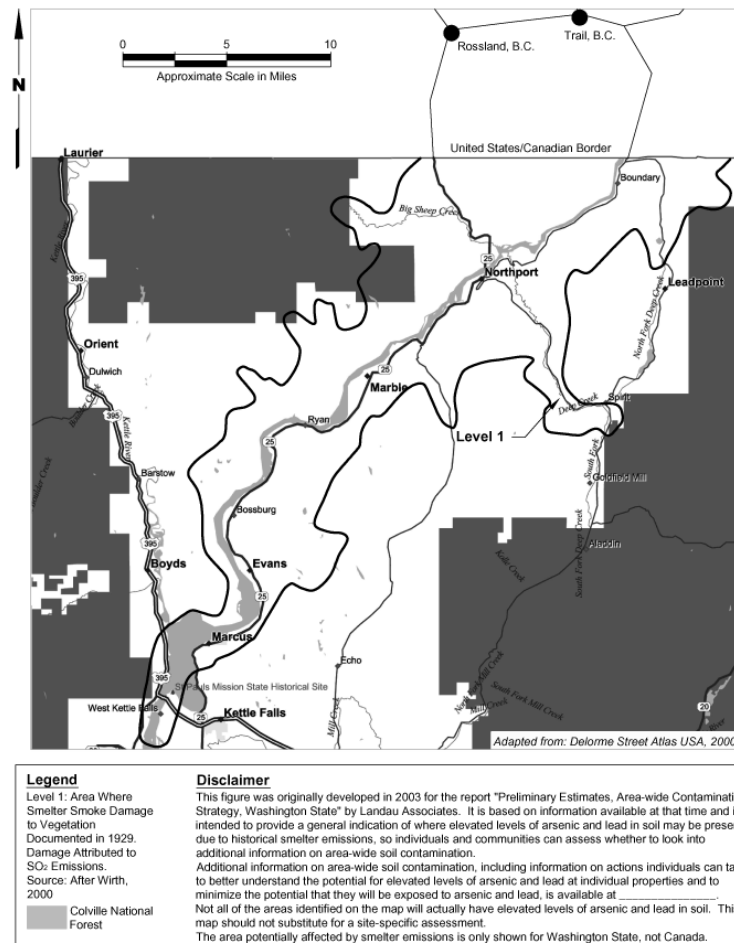
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Based on Data Available as of
January 2003

Tier 2: Area Affected by Emissions from the Northport and Trail, BC Smelters

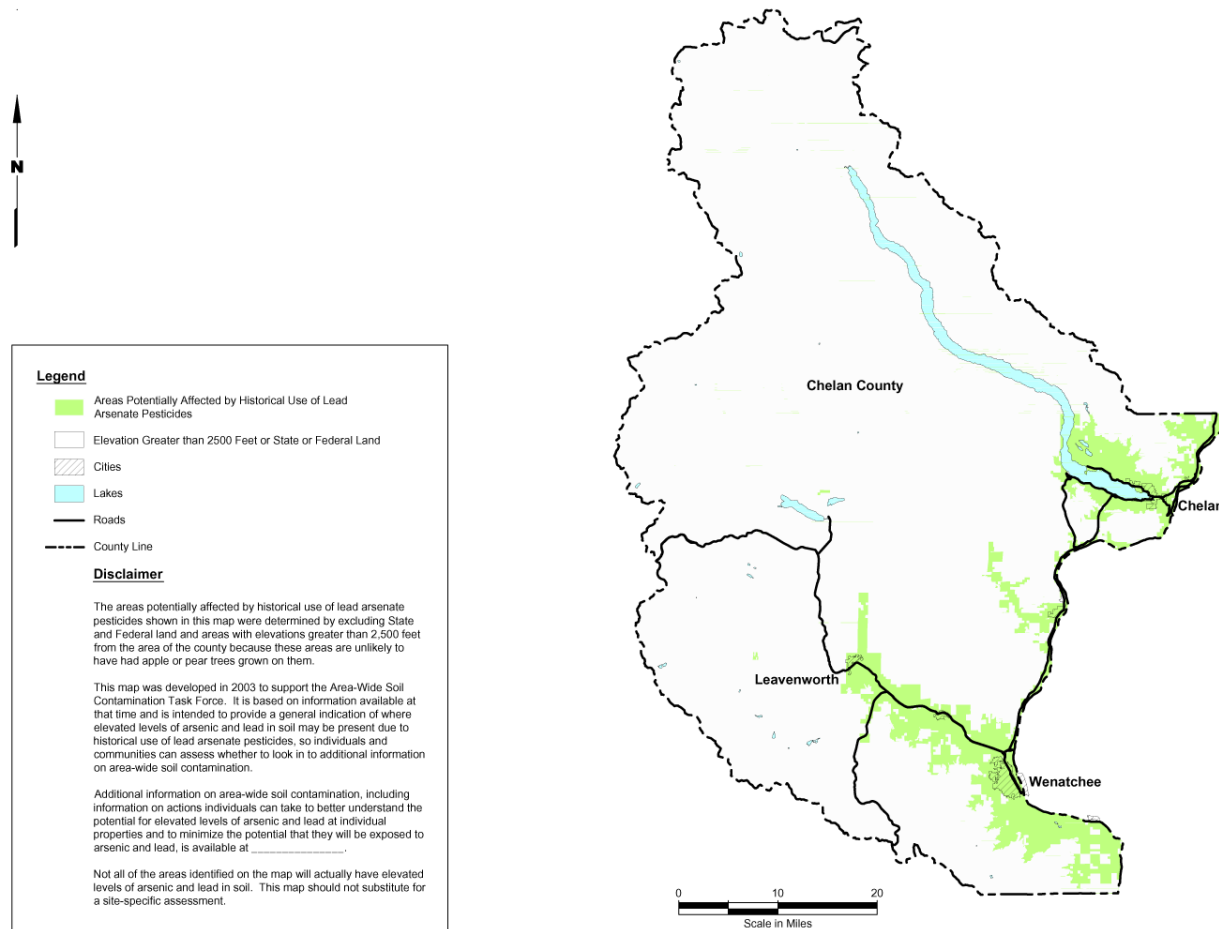


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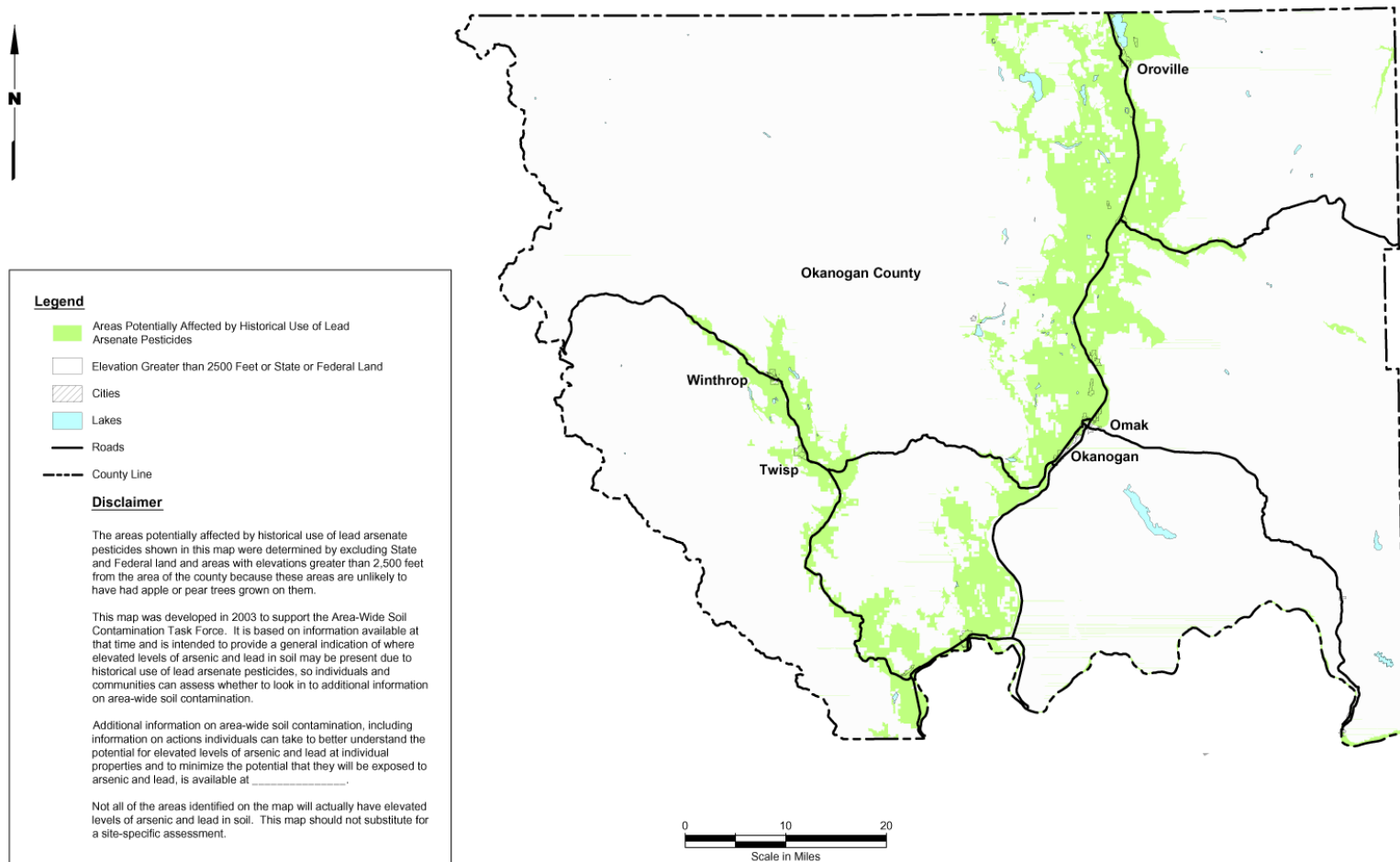
Tier 1: County Acreage Potentially Affected by Historical Use of Lead Arsenate Pesticide



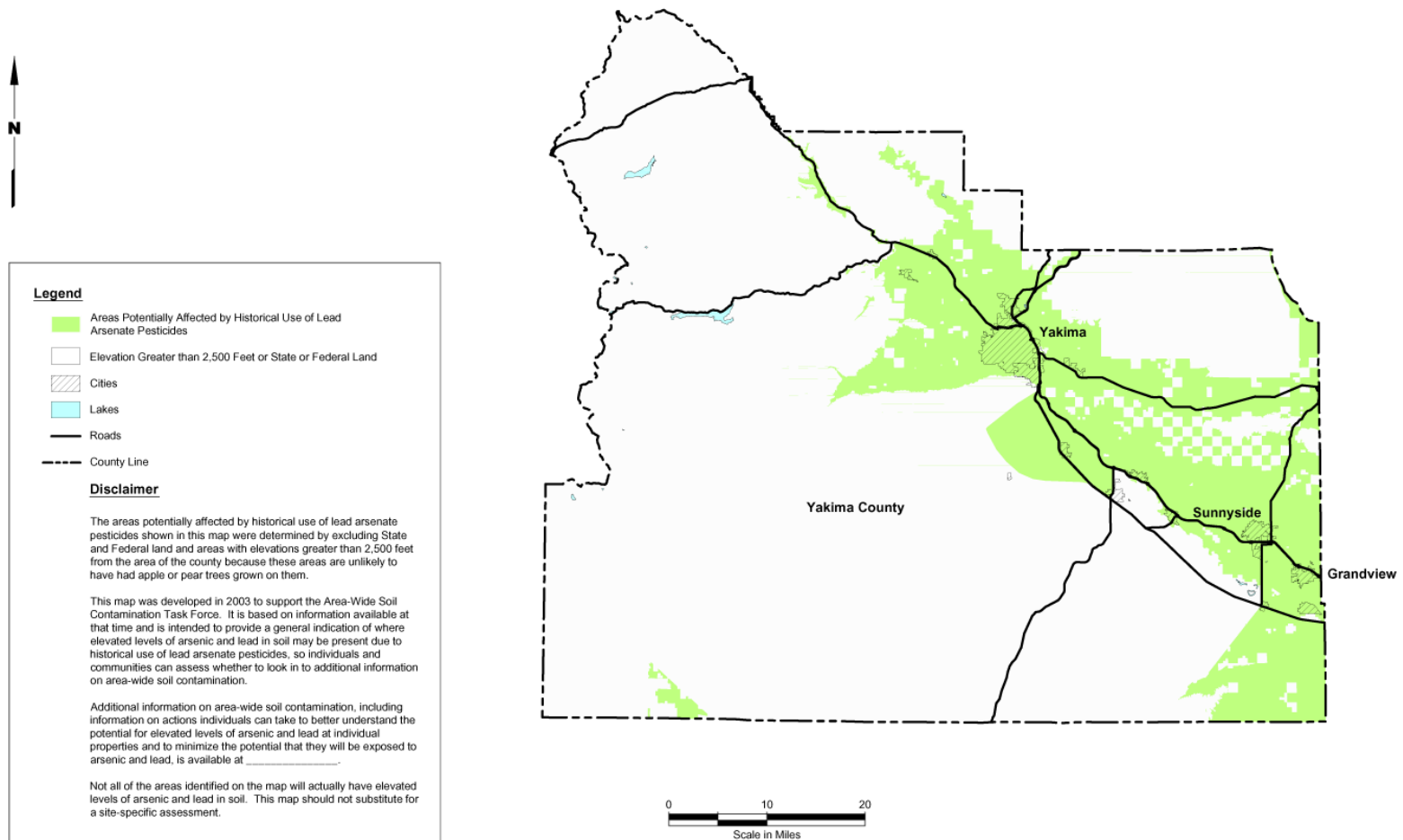
Tier 1: Areas Potentially Affected by Lead Arsenate in Chelan County



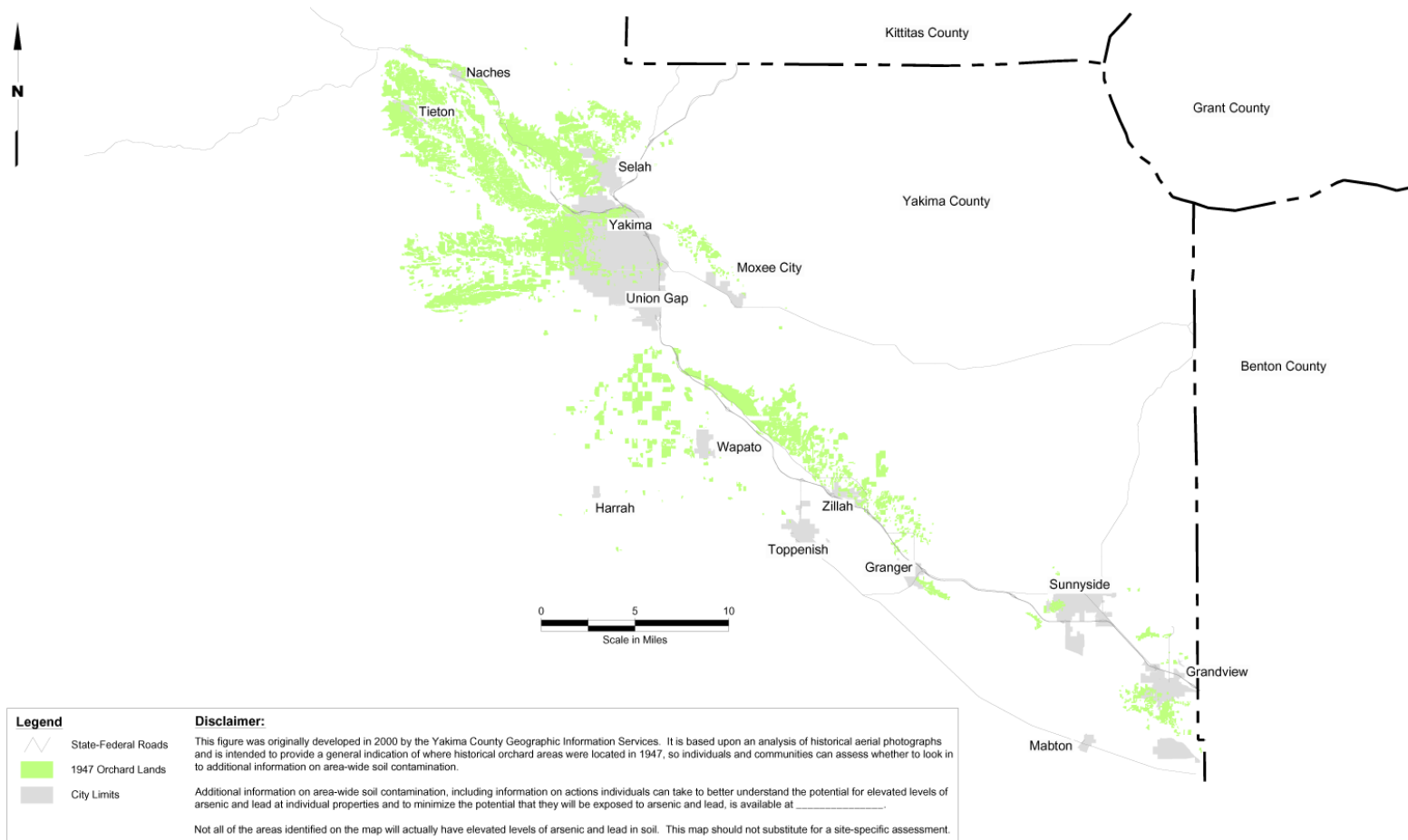
Tier 1: Areas Potentially Affected by Lead Arsenate in Okanogan County



Tier 1: Areas Potentially Affected by Lead Arsenate in Yakima County



Tier 2: Historical Orchards in Yakima County



Tier 2: Historical Orchards in the Lake Chelan/Manson Area of Chelan County

